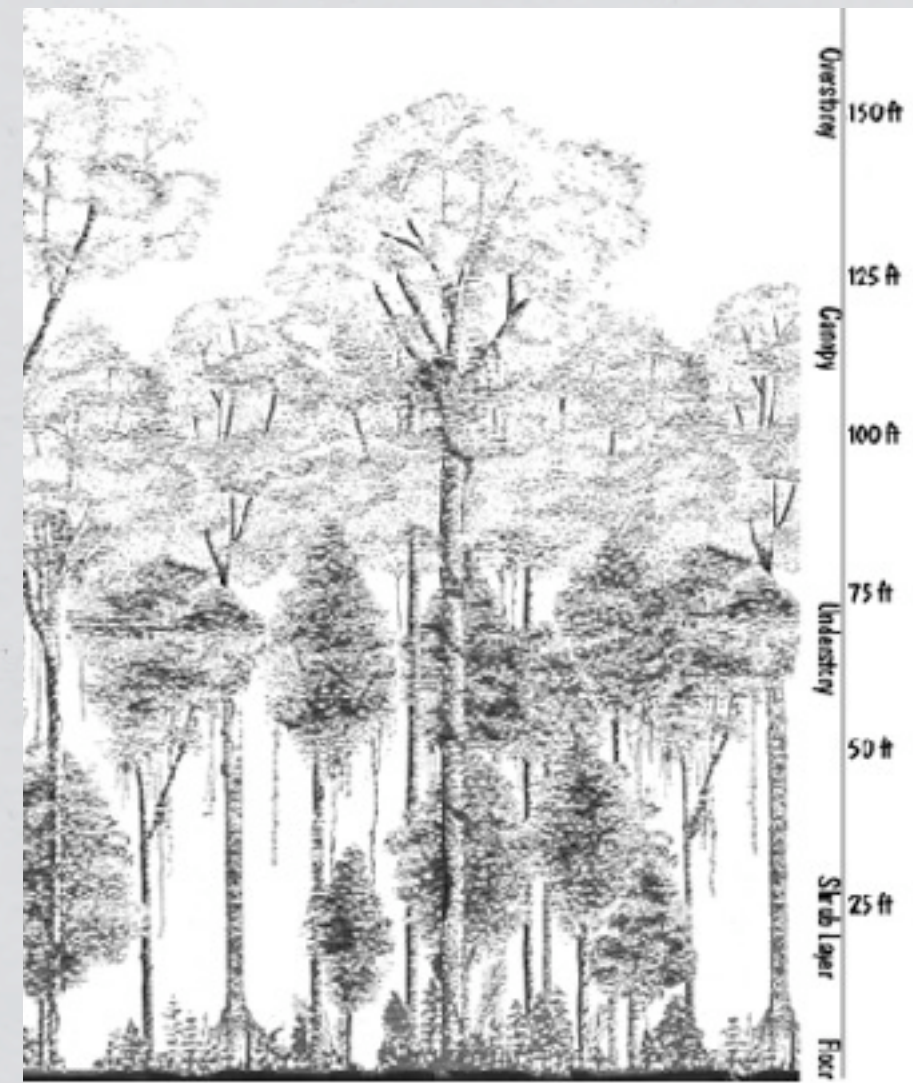


**Biodiversity:** rainforests have a high level of biological diversity or “biodiversity”. **Biodiversity** is the name for all living things—like plants, animals, and fungi—found in an ecosystem. Scientists believe that about half of the plants and animals found on Earth’s land surface live in rainforests.

- \* The canopy, which may be over 100 feet (30 m) above the ground, is made up of the overlapping branches and leaves of rainforest trees. Scientists estimate that 60-90 percent of life in the rainforest is found in the trees, making this the richest habitat for plant and animal life.
- \* The rainforest floor is often dark and humid due to constant shade from the canopy’s leaves. Despite its constant shade, the rainforest floor is an important part of the forest ecosystem.
- \* The overstory consists of giant emergent trees that tower above the surrounding canopy.
- \* The understory is the area between the canopy and the forest floor. Here the air is still, the humidity high, and the heat constant.
- \* The shrub layer is the layer between the canopy and the ground. Low shrubs and stunted trees are common in the shrub layer because of the low amount of sunlight.

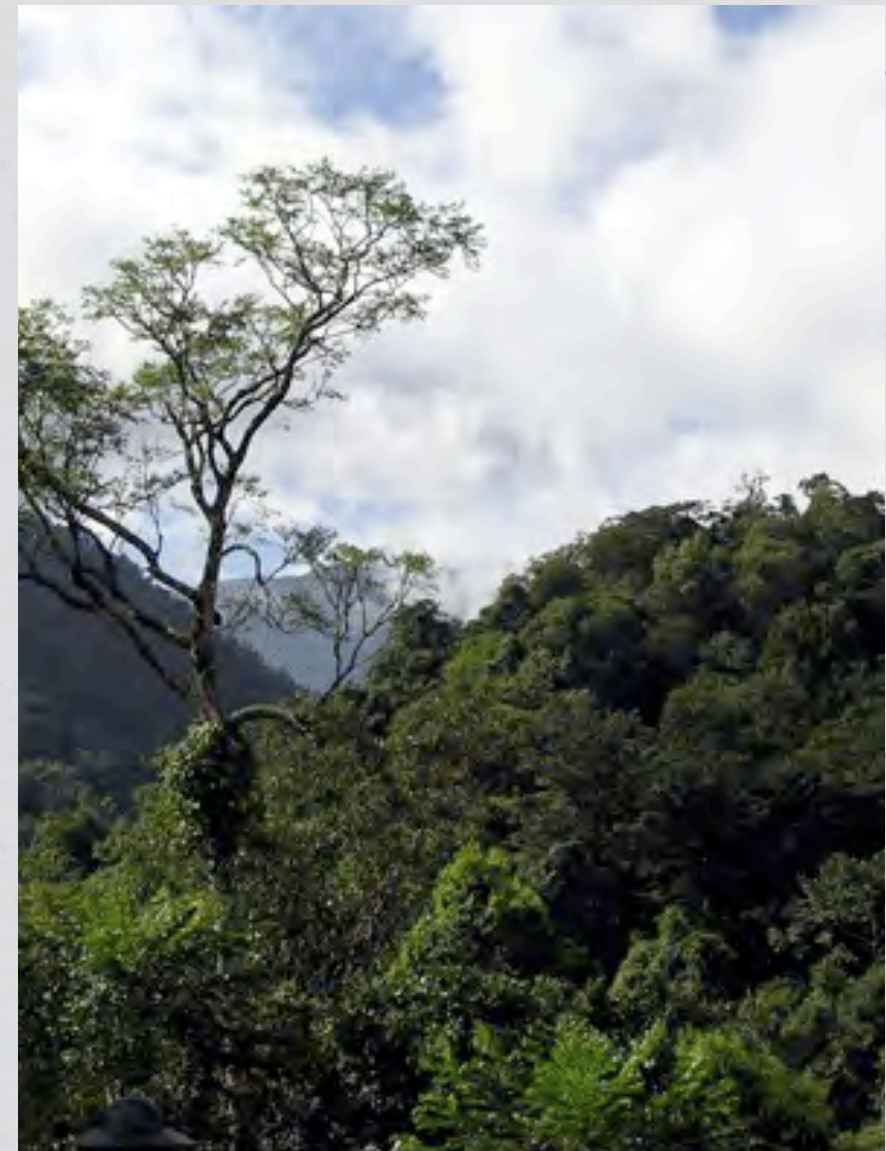




- \* Rainforests are often called the lungs of the planet for their role in absorbing carbon dioxide, a greenhouse gas, and producing oxygen, upon which all animals depend for survival. Rainforests also stabilize climate, house incredible amounts of plants and wildlife, and produce nourishing rainfall all around the planet.

#### Rainforests:

- help stabilize the world's climate;
- provide a home to many plants and animals;
- maintain the water cycle
- protect against flood, drought, and erosion;
- are a source for medicines and foods;
- support tribal people; and
- are an interesting place to visit





# JENGA! JENGA!

## Grade 5 : Standard 5 - Biodiversity and Change

### Conceptual Strand 5

*A rich variety of complex organisms have developed in response to a continually changing environment.*

**SPI 0507.5.1** Identify physical and behavioral adaptations that enable animals such as, amphibians, reptiles, birds, fish, and mammals to survive in a particular environment.

- \* Each block represents SOMETHING in the rainforest: a plant, animal, tree, insect, etc.
- \* As each person takes turns removing a block, think about what begins to happen
- \* How would this affect an environment?





# Three Minute Pause

## NOTES

- \* At this time, your group should take 3 minutes to summarize, clarify, and reflect on this activity
- \* Questions you may ask each other: “What did I learn?”  
“What began to happen as each block was removed?”  
“What eventually happened?”



Every year an area of rainforest the size of New Jersey is cut down and destroyed. **The plants and animals that used to live in these forests either die or must find a new forest to call their home.** Why are rainforests being destroyed?

\* Humans are the main cause of rainforest destruction. We are cutting down rainforests for many reasons, including:

- wood for both timber and making fires;
- agriculture for both small and large farms;
- land for poor farmers who don't have anywhere else to live;
- grazing land for cattle;
- pulp for making paper;
- road construction; and
- extraction of minerals and energy.

***Deforestation in Madagascar.  
All the forest is gone.***





# Rainforest-Teaching Across the Curriculum

## **MATH**

GLE 0506.1.5 Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.

The rainforest lends itself to all sorts of graphing activities that can be tailored to meet a range of abilities and skills. Students can create line plots of annual rainfall in a particular rainforest by years. Or they can create a pie chart that compares number of mammals to reptiles to birds in a rainforest.

## **Language Arts**

GLE 0501.3.2 Write in various modes and genres, including narration, literary response, personal expression, description, and imaginative.

GLE 0501.3.3 Know and apply the steps of the writing process: prewriting, drafting, revising, editing, evaluating, and publishing.

### Deforestation

#### Essential Question

How can the clearing of trees destroy a community?

Students will create a story that shows what they think would happen if all the trees were cut down in their neighborhood.

- a. Who would be affected?
- b. What changes would occur?

## **Social Studies**

1.01 Understand the diversity of human cultures.

1.02 Discuss cultures and human patterns of places and regions of the world

Students will research the different tribes of people and where they are located.